

March 27, 2019

FOR YOUR INFORMATION

To: Mayor and Members of Council

From: Patrick A. Duhaney, City Manager *PAD*

Subject: Columbia Parkway Retaining Wall Failure and Landslide Update

The purpose of this memo is to provide an update on the status of Columbia Parkway after an extended period of increased landslide activity in multiple areas between Downtown and Mt. Lookout. This update includes information about the emergency work currently taking place to address the wall failure on Columbia Parkway below Richwood Circle, and a new emergency procurement request to mitigate a highly unstable active landslide that worsened over the past few days which resulted in a streetlight pole falling into the roadway.

Attached to this memo is a detailed report from the Department of Transportation and Engineering (DOTE) on the overall hillside stability of Columbia Parkway from Bains Street to Torrence Parkway. The report outlines an approach for moving forward that addresses the ongoing active slide issues along this section of Columbia Parkway.

Wall Failure on Columbia Parkway Below Richwood Circle

The City Administration previously executed an emergency contract with GeoStabilization (GSI) to repair a failed retaining wall (crib wall) and stabilize the slope above Columbia Parkway just below Richwood Circle. GSI has commenced work and expects to finish the project in six weeks. One lane of westbound Columbia Parkway from Red Bank Road to Linwood Avenue will be maintained during construction. The cost of this mitigation effort will be approximately \$1 million, which has already been authorized by City Council. The residents who live on Richwood Circle are able to occupy their homes during construction.

Columbia Parkway Landslide Emergency Repair West of Torrence Parkway

There is an active massive landslide on Columbia Parkway west of William Howard Taft Road at its intersection with Torrence Parkway that requires immediate attention. The slide is considerable in terms of size and scale and the hillside in this area is very unstable. On Monday, a light pole cracked in half due to increased soil pressure caused by the landslide. The pole fell across three lanes of roadway.

The mitigation of this area will require an emergency procurement to ensure a contractor can immediately begin mitigation work. DOTE staff are evaluating options. Initial estimates indicate this work will cost no more than \$750,000. The Administration has presented a funding recommendation to the Mayor and to City Council.

Until this portion of the hillside is secure, westbound Columbia Parkway will remain closed in this area. A timetable has not yet been determined. DOTE continues to work with the Department of Public Services to evaluate if any short-term traffic pattern changes are feasible to accommodate traffic, particularly during rush-hour periods. Any such changes will be communicated to the public and the news media via the City's various social media channels.

Columbia Parkway Landslides - Bains to Torrence

The next area of greatest concern, which includes many active landslides and poses the next most significant potential safety concerns, is the stretch of Columbia Parkway between Bains Street and Torrence Parkway. The attached DOTE report is an evaluation of the slope stability issues on the uphill side in this area. This report provides a detailed description of the situation and the particular concerns associated with it. No residences above Columbia Parkway are jeopardized but the active slide continues to cause potential safety risks to motorists, forces the City to regularly reappropriate finite financial and human resources to address cleanup issues, and is a general public nuisance. The report also presents conceptual solutions and preliminary estimates of the cost to substantially reduce the dangers associated with the instability of the hillside.

Conclusion in the Report

It is clear something must be done to address the stability of the hillside along Columbia Parkway. However, attempting to address all potential hazards from landslides along the full stretch of the Parkway is cost-prohibitive. Therefore, we recommend reducing the scope of the project from all potential slide areas to just those areas that pose the most immediate and greatest concerns. This makes addressing this issue more economically feasible.

After consulting with DOTE, the City Administration recommends stabilizing approximately 5,100 feet of hillside along Columbia Parkway between Bains Street and 700 feet east of Torrence Parkway. The estimated cost of this recommended undertaking, including traffic control and any potential drainage improvements, is estimated at up to \$17 million. Stabilization methods can include a combination of constructing new retaining walls (method A), soil nailing (a soil stabilization method) (method B), or other potential improvements such as drainage or green solutions.

Please note that this solution factors in the emergency repairs required just west of Torrence Parkway described above. It does not include the work to repair the wall failure on Columbia Parkway below Richwood Circle that is already underway.

DOTE recommends using an expedited two-step design-build delivery method consisting of a Request for Information (RFI) followed by a Request for Proposal (RFP). This is the procurement method used for the Riverside Drive Retaining Wall Phase II project. The RFI process will allow design-build teams to submit their best and most cost-effective design concepts, preliminary plans, and cost and time estimates for consideration. After DOTE evaluates the submittals, several teams will be short-listed and invited to submit a more detailed RFP. The City will select the proposal that is in the best interest of the City and negotiate to enter into a contract using the City's emergency procurement procedure. Using emergency procedures allows work to begin while negotiations are ongoing.

The actual construction is expected to take approximately 18 to 24 months to complete. The City will need to close two lanes of Columbia Parkway between Bains Street and Torrence Parkway for the duration of the project.

The Administration hopes to fund the entire project at one time. This approach will allow the City to simultaneously address these issues holistically and comprehensively. A phased approach would take longer to complete, cause more significant traffic disruptions and likely be more expensive in the long run.

Potential funding options will be presented to the Mayor and City Council.

cc: Joe Vogel, Director, Transportation and Engineering

Attachments